Dtsch. Entomol. Z. 72 (2) 2025, 459–463 | DOI 10.3897/dez.72.157167

PENSOFT

für Natur MUSEUM FÜR NATURKUNDE BERLIN

Review of Chinese species of the leafhopper genus *Scaphomonoides* Li, 2011 (Hemiptera, Cicadellidae, Deltocephalinae, Scaphoideini), with description of a new species

Ke-Ting Duan[1,2], Mick D. Webb[3], Ji-Chun Xing[1,2]

1 *Institute of Entomology, Guizhou University, Guiyang, 550025, China*
2 *Guizhou Key Laboratory of Agricultural Biosecurity, Guiyang, 550025, China*
3 *Department of Life Sciences, Natural History Museum (Retired), Cromwell Road, London SW7 5BD, UK*

https://zoobank.org/B9E2E6DD-E9D5-4039-8CA1-4C923264DD9D

Corresponding author: Ji-Chun Xing (xingjichun@126.com)

Academic editor: Viktor Hartung ♦ **Received** 27 April 2025 ♦ **Accepted** 29 October 2025 ♦ **Published** 25 November 2025

Abstract

The leafhopper genus *Scaphomonoides* Li, 2011 is redescribed, and a new species *Scaphomonoides robustus* **sp. nov.** is described and illustrated from Yunnan Province, China. A key is given to distinguish the two species of this genus. The type specimen of the new species is deposited in the Institute of Entomology, Guizhou University, Guiyang, China (GUGC).

Key Words

Homoptera, morphology, taxonomy

Introduction

The leafhopper genus *Scaphomonoides* Li, 2011 was established in Li et al. (2011) with *Scaphotettix redstripeus* Li & Wang, 2005, from China, as its type and only species. Subsequently, the genus was re-assessed by Wei et al. (2025) and its type species recorded from Vietnam. In the present paper, *Scaphomonoides* and *S. redstripeus* are redescribed, and a new species *Scaphomonoides robustus* sp. nov. is described and illustrated from China. The type specimen of the new species is deposited in the Institute of Entomology, Guizhou University, Guiyang, China (GUGC).

Material and methods

Dry male and female specimens were used for the descriptions and illustrations. External morphology was observed under a stereoscopic microscope and characters were measured with an ocular micrometer. The genital segments of the examined specimen were macerated in 10% NaOH. Color pictures for adult habitus and the genitalia of specimens were obtained by KEYENCE VHX-6000 system. Illustrations were imported into Adobe Photoshop CS8 for labeling and plate composition.

The morphological terminology used in the descriptions mainly follows Li et al. (2011), however, that of leg setal rows follows Rakitov (1997), i.e., **AM**: anteromedial row, **AD**: anterodorsal row, **AV**: anteroventral row, **PD**: posterodorsal row, and **IC**: intercalary row. Absolute measurements, in millimeters (mm), are reported for the body.

Copyright *Ke-Ting Duan et al.* This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Key to species (♂) of *Scaphomonoides*

1 Transverse orange bands on head and thorax incomplete or interrupted in mid-line (Fig. 1D). Aedeagus with a pair of moderately long slender processes arising from ventral margin near base; shaft distally tapered to acute apex, without processes; dorsal apodeme bifurcate distally (Fig. 2C–E) ..... *S. redstripeus*

– Transverse orange bands on head and thorax complete (Fig. 4D). Aedeagus with a pair of long stout processes arising from ventral margin near base; apex of the shaft not tapered to acute apex, with two pairs spiniform processes; dorsal apodeme not bifurcate (Fig. 5C–E) ..... *S. robustus* sp. nov.

Taxonomy

Scaphomonoides Li, 2011

Scaphomonoides Li (in Li et al. 2011): 259.

Type species. *Scaphotettix redstripeus* Li & Wang, 2005.

Description. Body ochraceous. Head yellowish with a thin dark brown transverse band anteriorly either side of ocellus. Vertex with an orange arcuate band between eyes. Pronotum with pair of orange arcuate bands.

Head slightly narrower than greatest width of pronotum; ocelli on anterior margin, separated from corresponding eye by approximately their own diameter; vertex longer medially than next to eye, anterior margin distinctly angulate. Face slightly flattened, antenna located near upper corner of eye; anteclypeus flat and slightly expanded from base to apex. Pronotum anterior margin strongly produced, posterior margin slightly concave, with length slightly longer than scutellum. Fore femur with 2 dorsoapical setae, row AM with 1 stout seta, row IC with 14 setae, and row AV with several short setae in basal half. Fore tibia with 3 macrosetae in row AD and numerous macrosetae in row AV. Hind femur with apical setal formula 2+2+1. Hind tibia flattened and slightly incurved, row AD with approximately 10 long stout setae

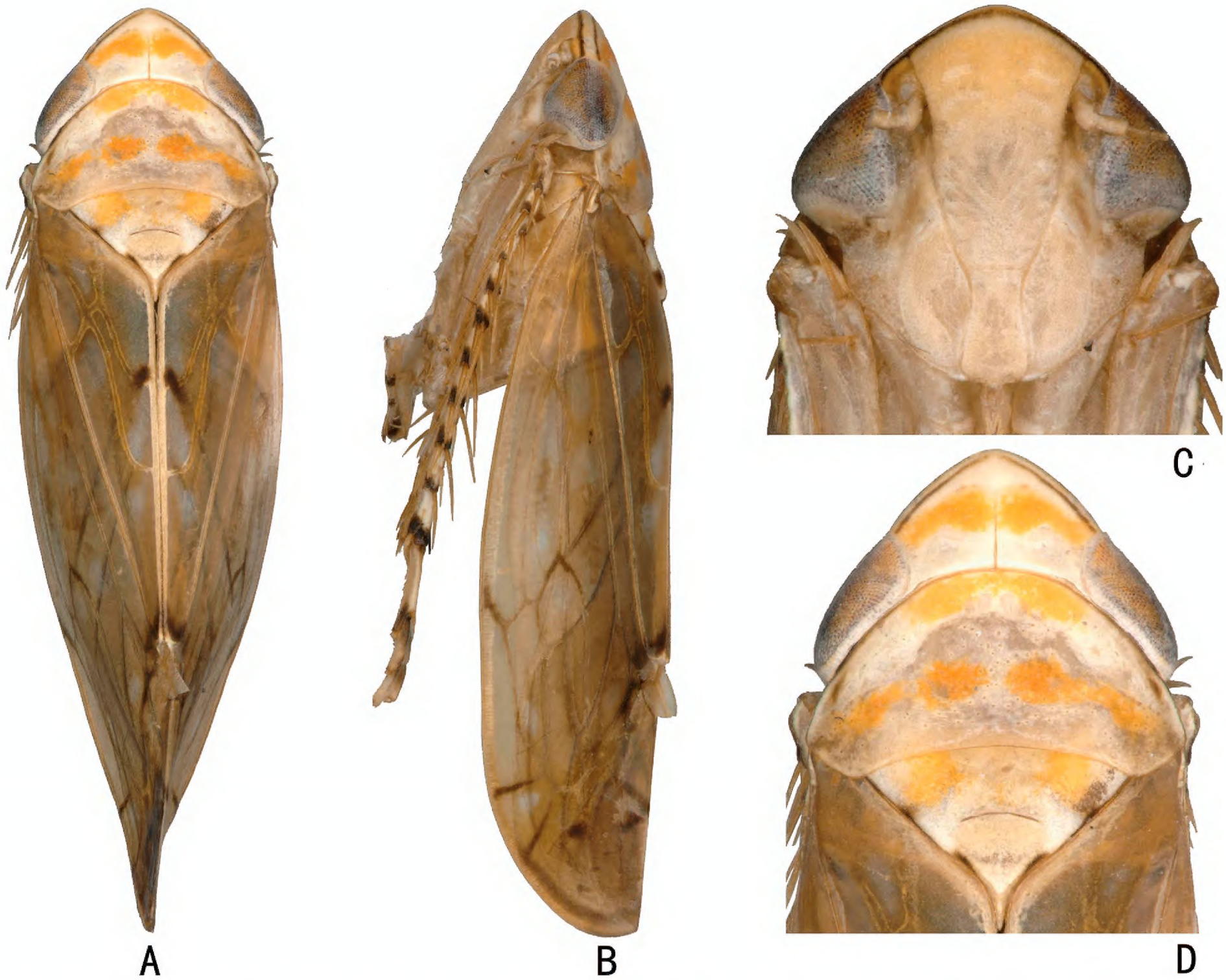

Figure 1. Male of *Scaphomonoides redstripeus* (Li & Wang, 2005). **A.** Habitus, dorsal view; **B.** Habitus, lateral view; **C.** Face, ventral view; **D.** Head and thorax, dorsal view.

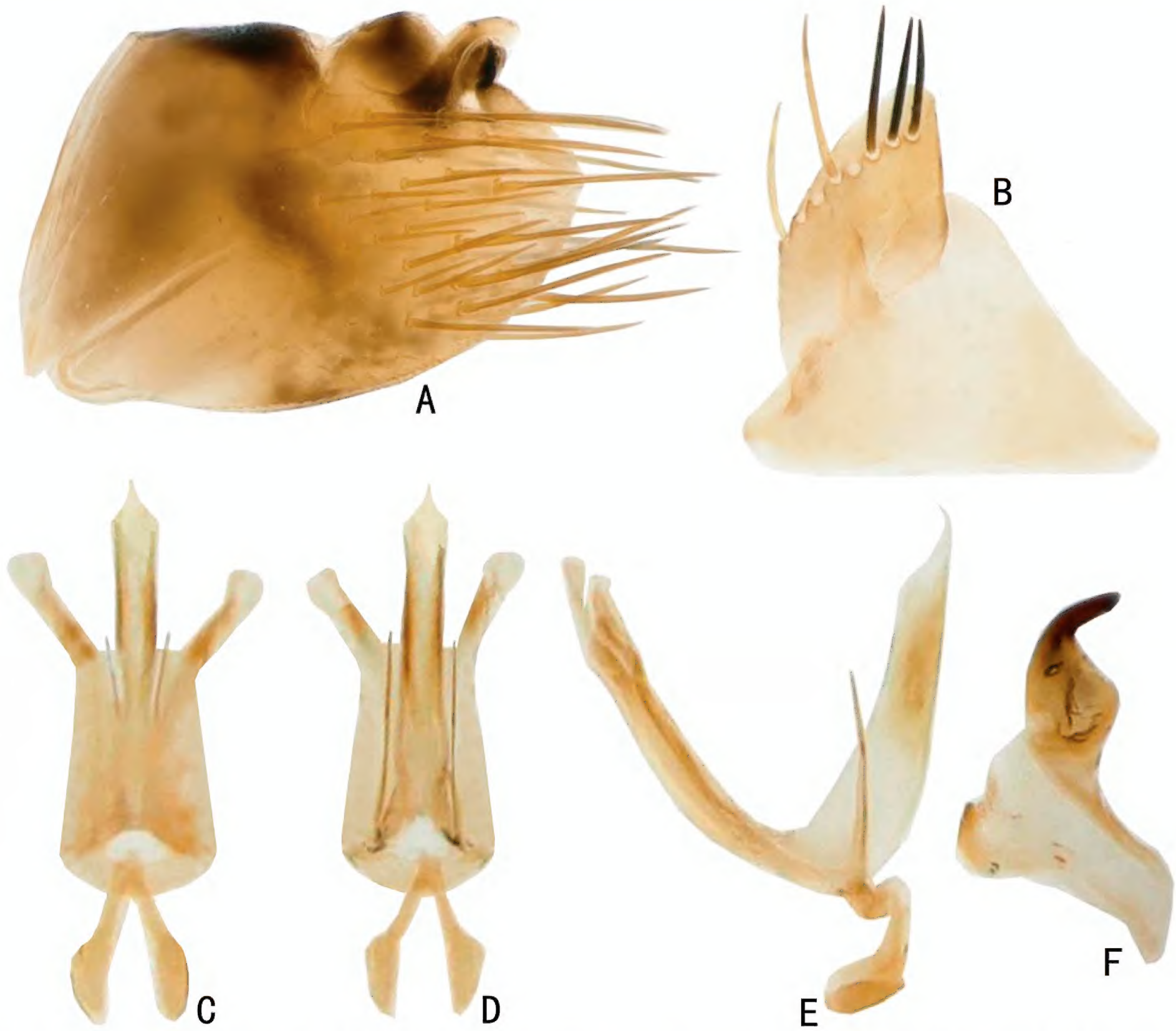

Figure 2. Male of *Scaphomonoides redstripeus* (Li & Wang, 2005). **A.** Pygofer and anal tube, lateral view; **B.** Valve and left subgenital plate, ventral view; **C.** Aedeagus and connective, dorsal view; **D.** Aedeagus and connective, ventral view; **E.** Aedeagus and connective, lateral view; **F.** Style, dorsal view.

and 1–3 shorter setae between each long seta; row PD with 15 macrosetae decreasing in length toward base.

Male genitalia. Pygofer with numerous macrosetae on posterior area. Valve subtriangular. Subgenital plate short with several macrosetae on lateral margin; three apical setae dark brown, rest pale. Aedeagus with a pair of processes fused to base of ventral margin; shaft cylindrical with or without apical processes, gonopore apical; dorsal apodeme elongate bifurcate apically. Style broad basally, apical processes short and curved; lateral lobe triangular shaped. Connective Y-shaped with stem very short, articulated with aedeagus.

Remarks. The appearance of this genus is similar to several other genera of the Scaphoideini: *Scaphoideus* group (see Wei et al. 2025: 237) with a pair of thin dark transverse bands on the anterior margin of the head and orange transverse bands on the head and thorax. It can be distinguished from other members of this group by a combination of characters in the male genitalia, i.e., aedeagus with pair of basal processes from the ventral margin and basal apodeme elongate, subgenital plate short and stem of connective very short.

Distribution. Oriental Region: China, Vietnam.

Scaphomonoides redstripeus (Li & Wang, 2005)

Figs 1–3

Scaphotettix redstripeus Li & Wang, 2005: 188.

Scaphomonoides redstripeus, Li et al. 2011: 260; Wei et al. 2025: 237.

Description. Color and external features as in generic description, Face yellowish. Pronotum yellowish with two orange arcuate bands, middle part of the second band not connected (Fig. 1C). Vertex slightly more than 1.9 × wider than its median length, medially 1.5 × shorter than median length of pronotum. Pronotum nearly 2.2 × maximum width than median length (Fig. 1D).

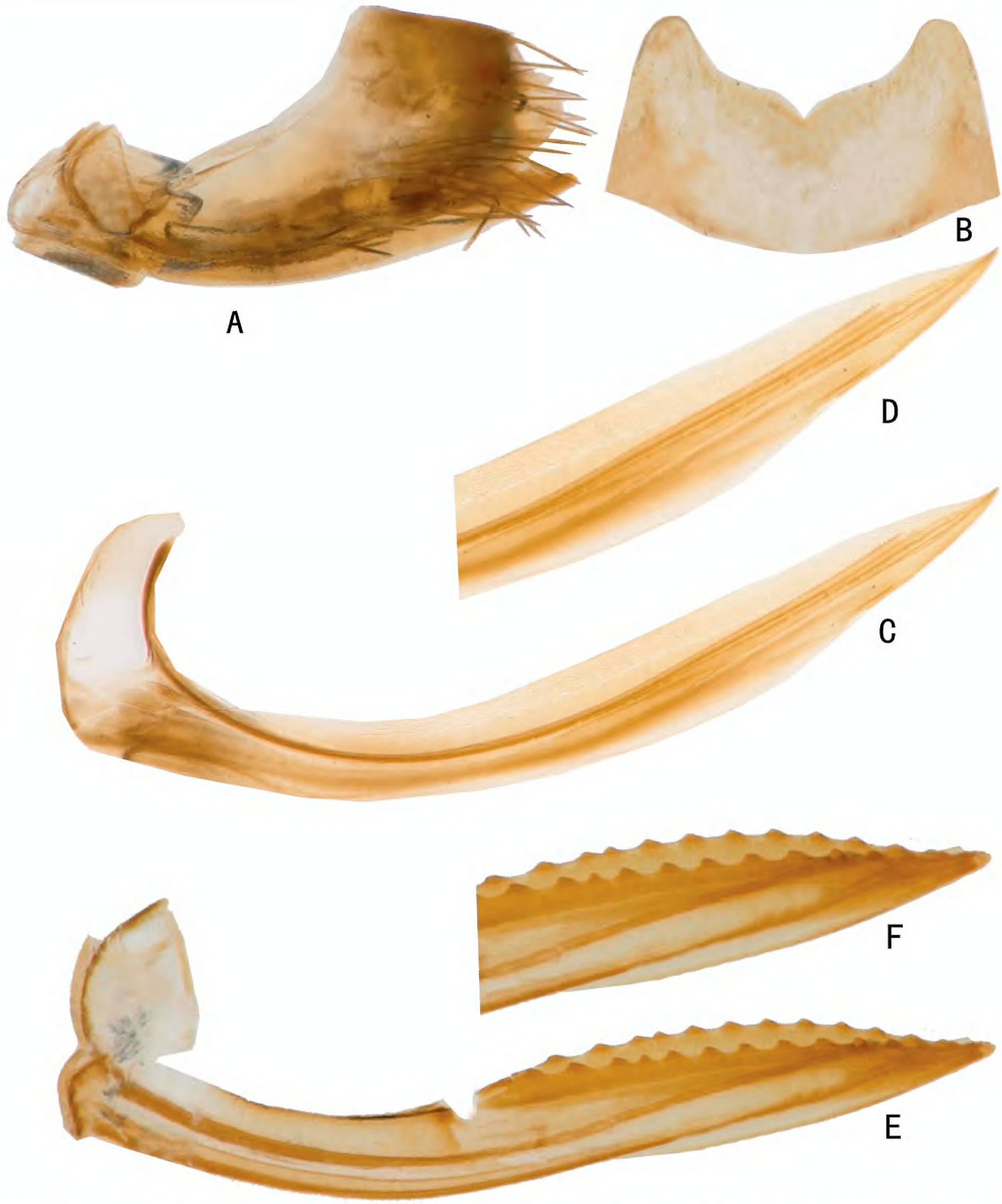

Figure 3. Famale of *Scaphomonoides redstripeus* (Li & Wang, 2005). **A.** Genital capsule, lateral view; **B.** Seventh sternite, ventral view; **C.** First valvula, lateral view; **D.** Detail of sculpture of first valvula; **E.** Second valvulae, lateral view; **F.** Detail of sculpture of second valvulae.

Male genitalia. Pygofer side wide basally, apex narrow, with numerous macrosetae on posterior area (Fig. 2A). Anal tube short (Fig. 2A). Valve subtriangular, nearly 1.5 × as broad as median length (Fig. 2B). Subgenital plate with 8 macrosetae along lateral margin, length of outer margin about 1.75 × width of base (Fig. 2B). Aedeagus with a pair of moderately long slender pointed processes arising from ventral margin near base; shaft tubular, distally tapered to acute apex, without processes; dorsal apodeme elongate, bifurcate

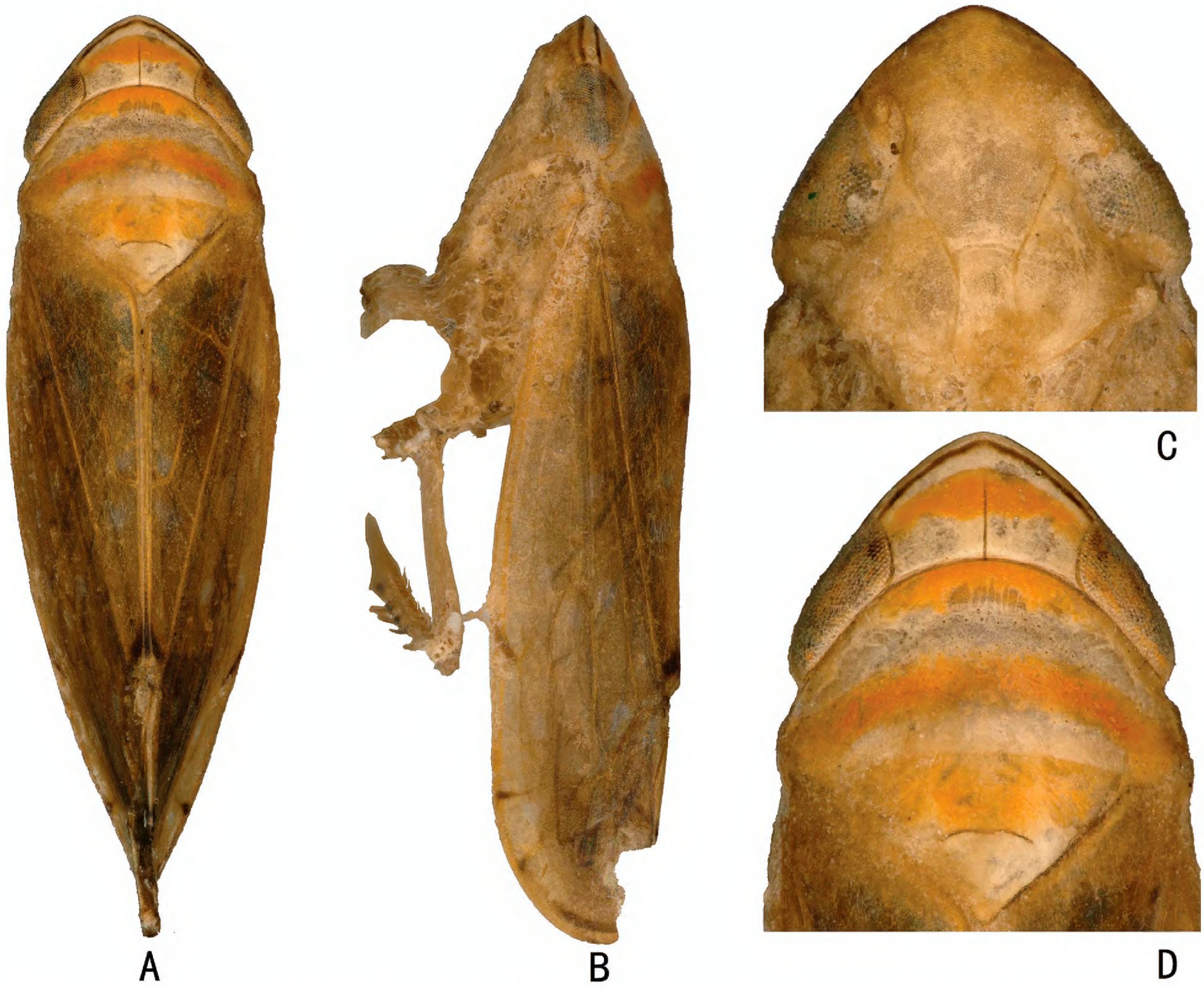

Figure 4. Male of *Scaphomonoides robustus* sp. nov. **A.** Habitus, dorsal view; **B.** Habitus, lateral view; **C.** Face, ventral view; **D.** Head and thorax, dorsal view.

distally (Fig. 2C, D). Connective Y-shaped, stem very short (Fig. 2C, D). Style broad basally, apical process short, curved and tapered to apex (Fig. 2F).

Female genitalia. Seventh sternite with posterior margin distinctly concave medially, concavity somewhat distinctly extended posteriorly in midline and sharply cleft (Fig. 3B). Pygofer with ventroposterior margin incurved (Fig. 3A). First valvulae of ovipositor with dorsal sculpture strigate (Fig. 3C, D). Second valvulae with denticles in distal half, prominent, gradually becoming smaller distally, apex rounded (Fig. 3E, F).

Measurements (mm). Length (including tegmen): ♂, 5.07–5.44; ♀, 5.18–5.42.

Material examined. China–**Hainan Prov.** • 2♂♂, 12♀♀; Jianfengling; 14 May 1997; M.F. Yang leg.; GUGC. –**Hainan Prov.** • 2♂♂, 4♀♀; Jianfengling; 12 Jul. 2007; Y.J. Li, J.C. Xing leg.; GUGC. –**Jianxi Prov.** • 2♂♂, 4♀♀; Jiuliansha; 19 Jul. 2008; Z.H. Meng leg.; GUGC. –**Yunnan Prov.** • 2♂♂,4♀♀; Mengla County, 19 Jul. 2008; X.H. Jiang, J.D. Li leg.; GUGC. –**Hainan Prov.** • 4♂♂; Jiulianshan; 19 Jul. 2008; F.E. Li leg.; GUGC. –**Hainan Prov.** • 1♂,2♀♀; Limushan, 19 Apr. 2021; S.S. Lv leg.; GUGC. –**Hainan Prov.** • 3♀♀, Diaoluoshan, 5 May 2021; N. Gong leg.; GUGC.

Distribution. China: Hainan, Yunnan, Jiangxi; Vietnam.

Note. The original figures of Li and Wang (2005) are poor, e.g., lacking the aedeagus in ventral view and dorsal apodeme described as the aedeagal shaft. Here, the male genitalia structures are illustrated and redescribed (see also figures in Wei et al. 2025).

Scaphomonoides robustus sp. nov.

https://zoobank.org/63CAEB82-5A88-447F-9FA4-6F73958718F6

Figs 4, 5

Description. External features as in *Scaphomonoides redstripeus*, but face yellowish–brown and second orange band of pronotum complete with no break in middle (Fig. 4C).

Male genitalia. Pygofer side approximately rectangular, with stout setae over dorsoposterior area

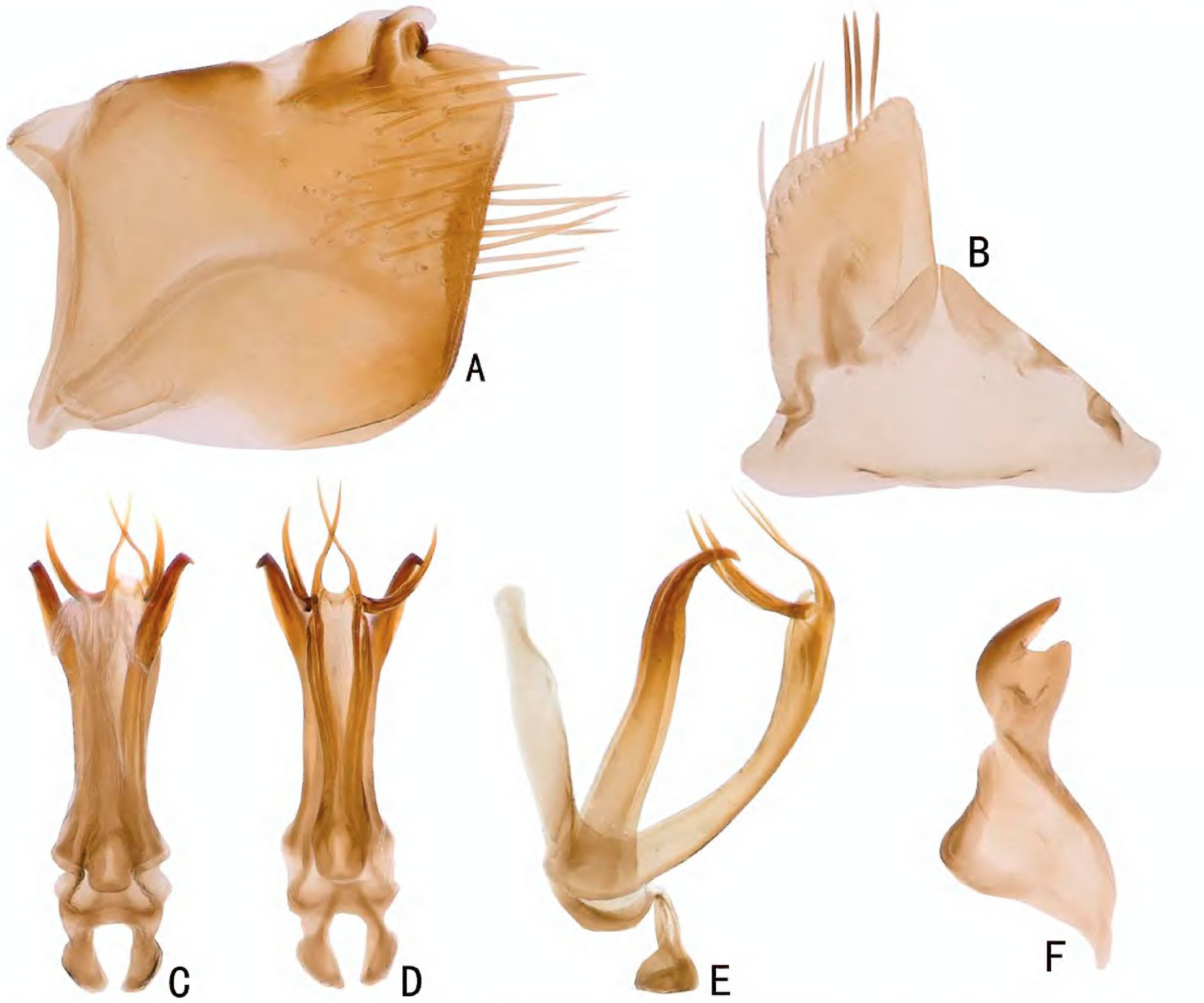

Figure 5. Male of *Scaphomonoides robustus* sp. nov. **A.** Pygofer and anal tube, lateral view; **B.** Valve and left subgenital plate, ventral view; **C.** Aedeagus and connective, dorsal view; **D.** Aedeagus and connective, ventral view; **E.** Aedeagus and connective, lateral view; **F.** Style, dorsal view.

(Fig. 5A). Valve subtriangular, nearly 1.9 × as broad as median length (Fig. 5B). Subgenital plate rectangular, with a row of 11 stout setae along lateral margin. (Fig. 5B). Aedeagus with a pair of processes arising basally and extended beyond end of aedeagal shaft, apex of shaft with two pairs spiniform of processes, gonopore apical (Fig. 5C, D). Connective with arms nearly same length as stem (Fig. 5C, D). Style broad basally, preapical lobe short and rounded (Fig. 5F).

Measurements (mm). Length (including tegmen): ♂, 5.04.

Type material. China–**Yunnan Prov.** • 1♂ (***Holotype***); Ruili, Mengxiu; 17 Jul. 2013; H.Y. Sun leg.; GUGC.

Distribution. China: Yunnan.

Remarks. This new species is similar to *S. redstripeus* in general appearance, but can be distinguished by the subgenital plate setae being more numerous, less stout and shorter than in *S. redstripeus* and a very differently shaped aedeagus.

Etymology. The new species name is the Latin word "*robustus,-a,-um*" (=robust, stout), referring to the aedeagus with a pair of stout processes arising from ventral margin near base.

Acknowledgements

Thanks to all the collectors for their collections and presenting the specimens used in this work. This work was supported by the National Natural Science Foundation of China (32060123, 31660624), and the Program of Science and Technology Innovation Talents Team, Guizhou Province (No. 20144001).

References

Li ZZ, Wang LM (2005) A taxonomic study on the genus *Scaphotettix* Matsumura (Hemiptera: Cicadellidae: Euscelinae). Entomotaxonomia 27: 187–194. [In Chinese with English summary] https://doi.org/10.3969/j.issn.1000-7482.2005.03.006

Li ZZ, Dai RH, Xing JC (2011) Deltocephalinae from China (Hemiptera: Cicadellidae). Popular Science Press, Beijing, 336 pp. [in Chinese with English summary]

Wei X, Webb MD, Dai W (2025) Review of the Asian leafhopper genus *Scaphomonus* Viraktamath (Hemiptera: Cicadellidae: Deltocephalinae: Scaphoideini) with description of a new genus and new species. European Journal of Taxonomy 989: 215–244. https://doi.org/10.5852/ejt.2025.989.2895